

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1-7 (canceled).

Claim 8 (previously presented): An acceleration sensor comprising:

a base plate; and

first and second resonators each including a piezoelectric material and each having electrodes on two opposite main surfaces thereof, each of the first and second resonators having a vibrating section at an intermediate portion of the respective resonator with respect to a longitudinal direction thereof; wherein

the first and second resonators are attached to opposite sides of the base plate with respect to a direction in which acceleration is applied so as to define a bimorph acceleration-sensor element, at least one longitudinal end of the acceleration-sensor element is fixed such that the first and second resonators bend in the same direction in response to the acceleration, and changes in frequency or changes in impedance in the first and second resonators caused by the bending of the acceleration-sensor element are differentially detected in order to detect the acceleration;

opposite sides of the acceleration-sensor element with respect to the application direction of acceleration are respectively covered with a pair of casing components; and

the first and second resonators are attached to the base plate such that the electrodes of the first and second resonators face at least one of opposite open planes defined by a combination of the acceleration-sensor element and the casing components with respect to a direction that is substantially perpendicular to the application direction of acceleration.

Claim 9 (previously presented): The acceleration sensor according to Claim 8, wherein one of the opposite open planes defined by the combination of the acceleration-sensor element and the casing components with respect to the direction that is substantially perpendicular to the application direction of acceleration is provided with a first electrode connected with one of the electrodes of the first resonator, a second electrode connected with one of the electrodes of the second resonator, and a third electrode connected with the other electrode of the first resonator and with the other electrode of the second resonator.

Claim 10 (previously presented): The acceleration sensor according to Claim 8, wherein the base plate and the first and second resonators are made of at least one material having substantially the same coefficient of thermal expansion.

Claim 11 (previously presented): The acceleration sensor according to Claim 8, wherein only one longitudinal end of the acceleration-sensor element is fixed, wherein the opposite open planes defined by the combination of the acceleration-sensor element and the casing components with respect to the direction that is substantially perpendicular to the application direction of acceleration are respectively covered with a pair of cover components such that a displacement portion of the acceleration-sensor element, which is bendable in response to the acceleration, is disposed within an enclosed space, one of the electrodes in each of the first and second resonators is disposed at a free-end side of the resonator and is connected with a common electrode via an extraction electrode provided on the base plate, the common electrode being provided at a fixed-end side of an outer surface of a combination of the casing components and the cover components, the other electrode in the first resonator is disposed at a base-end side of the first resonator, the electrode being connected with a first independent electrode provided at a free-end side of the outer surface of the combination of the casing components and the cover components, the electrode being

connected with the first independent electrode via a first extraction electrode provided on one of the casing components, and the other electrode in the second resonator is disposed at a base-end side of the second resonator, said electrode being connected with a second independent electrode provided at the free-end side of the outer surface of the combination of the casing components and the cover components, said electrode being connected with the second independent electrode via a second extraction electrode provided on the other casing component.

Claim 12 (previously presented): The acceleration sensor according to Claim 8, wherein a height of the first and second resonators in the direction that is substantially perpendicular to the application direction of acceleration is smaller than a height of the base plate in the direction that is substantially perpendicular to the application direction of acceleration.

Claim 13 (previously presented): The acceleration sensor according to Claim 12, wherein the first and second resonators are attached to the opposite sides of the base plate at positions where the first and second resonators are opposed to each other.

Claim 14 (previously presented): The acceleration sensor according to Claim 13, wherein each of the first and second resonators is attached to a central portion of the base plate with respect to a height direction of the base plate, the height direction being substantially perpendicular to the application direction of acceleration.